IN THE CLAIMS

Claim 1. (Canceled).

Claim 2. (Previously Presented). Separation module according to claim 27, wherein the end plate is a perforated plate and the module further comprises a housing, which housing encloses the bundle, the housing having an inlet and/or outlet pipe in fluid communication with the inside of the sintered porous ceramic capillaries for a first material flow and/or an outlet pipe in fluid communication with the innerspace between the sintered porous ceramic capillaries for a second material flow, wherein the distance between the sintered porous ceramic capillaries is further kept constant by spacers.

Claim 3. (Canceled).

Claim 4. (Previously Presented). Separation module according to Claim 27, wherein said external diameter ranges from 1 mm to 2.5 mm and said internal diameter ranges from 0.7 to 1.5 mm.

Claim 5. (Previously Presented). Separation module according to Claim 27, wherein the distance between sintered porous ceramic capillaries in the bundle is 0.05 - 10 mm.

Claim 6. (Previously Presented). Separation module according to Claim 5, wherein said distance is < 3 mm.

Claim 7. (Previously Presented). Separation module according to Claim 27, wherein the distance between the sintered porous ceramic capillaries in the bundle is established by said staggered ceramic film strips as a function of the permeate flow and permeate medium.

Claim 8. (Previously Presented). Separation module according Claim 27, wherein the bundles of capillaries have a diameter of from 10 mm to 250 mm.

Claim 9. (Previously Presented). Separation module according to Claim 8, wherein said diameter is from 20 mm to 50 mm.

Claim 10. (Previously Presented). Separation module according to Claim 27, wherein the sintered porous ceramic capillaries have, on the inside, a thin membrane having separation activity.

Claim 11. (Previously Presented). Separation module according to Claim 27, wherein the sintered porous ceramic capillaries have, on the outside, a thin membrane having separation activity.

Claim 12. (Canceled).

Claim 13. (Previously Presented). Separation module according to Claim 27, wherein several bundles of sintered porous ceramic capillaries are arranged parallel to each other in a housing and the separation module further comprises a feed space and a permeation space.

Claim 14. (Previously Presented). Separation module according to Claim 13, wherein the housing comprises stainless steel and the feed space and permeation space is sealed by an elastomer O-ring, a graphite seal or a sealing compound.

Claim 15. (Previously Presented). Separation module according to Claim 13, wherein the housing comprises ceramic and the feed space and permeation space is sealed at joints by ceramic- or glass-containing slip, paste or adhesive.

Claim 16. (Previously Presented). A membrane reactor comprising the separation module of Claim 27, wherein the individual sintered porous ceramic

capillaries are coated with a catalyst or are themselves a catalyst or the catalyst is otherwise present in the module.

Claim 17. (Canceled).

Claim 18. (Withdrawn/ Previously Presented). Method according to Claim 28, which further comprises placing sintered porous ceramic capillaries in holes at the bottom of a mold, filling this mold with a polymer-, ceramic- and/or glass-containing casting compound and, after demolding, cutting off the projecting ends of the capillaries.

Claim 19. (Withdrawn/ Previously Presented). Method according to Claim 28, which further comprises inserting sintered porous ceramic capillaries into perforated discs and sealing the joints between the two with the use of polymer-, ceramic- or glass-containing slips, pastes or adhesives.

Claim 20. (Withdrawn/ Previously Presented). Method according to Claim 28, which further comprises inserting sintered porous ceramic capillaries into unsintered ceramic perforated discs and firmly connecting by shrinkage of the perforated disc.

Claim 21. (Withdrawn/ Previously Presented). Method according to Claim 28, which further comprises inserting unsintered porous ceramic capillaries into unsintered ceramic perforated discs and firmly connecting by co-firing.

Claim 22. (Withdrawn/ Previously Presented). Method according to Claim 28, which further comprises winding sintered porous ceramic capillaries with at least one strip of polymer-, ceramic- and/or glass-containing film, braid or woven fabric and firmly connecting by shrinkage during curing of the film.

Claim 23. (Withdrawn/ Previously Presented). Method according to Claim 28, which further comprises winding unsintered porous ceramic capillaries with at least

one strip of ceramic- and/or glass-containing film, braid or woven fabric and firmly connecting by co-firing.

Claim 24. (Withdrawn/ Previously Presented). Method according to Claim 28, which further comprises coating the sintered porous ceramic capillaries on their inside or outside walls with a membrane having separation activity and, in the case of a completely ceramic capillary bundle, coating with the membrane having separation activity after completion of the capillary bundle in one step.

Claim 25. (Withdrawn/Previously Presented). Method according to Claim 28, which further comprises coating the sintered porous ceramic capillaries on their inside or outside walls with a membrane having separation activity, wherein a nonceramic component is present in the capillary bundle, and the capillaries are coated with the membrane having separation activity prior to installation in the module.

Claim 26. (Previously Presented). A membrane separation process, wherein a fluid to be separated is passed through a separation module of Claim 27, having a feed space and a permeation space, and wherein a vacuum is applied to the permeation space.

Claim 27. (Previously Presented) A separation module comprising at least one bundle comprising a plurality of sintered porous ceramic capillaries arranged in parallel and joined together by staggered ceramic film strips pressed at least partially around and connecting adjacent sintered porous ceramic capillaries, the plurality of sintered porous ceramic capillaries and said staggered ceramic film strips being wound into said at least one bundle, the said staggered ceramic film strips when wound into said at least one bundle functioning as baffle plates, each of said sintered porous ceramic capillaries in the bundle having an external diameter ranging from 0.3 mm to 10 mm and an internal diameter ranging from 0.1 mm to 8 mm, each of said sintered porous ceramic capillaries in the bundle being spaced apart from an adjacent

sintered porous ceramic capillary in the bundle by a defined distance established by said staggered ceramic film strips, and an end of each of said sintered porous ceramic capillaries passing through an end plate at a defined distance from an end of an adjacent sintered porous ceramic capillary also passing through said end plate.

Claim 28. (Withdrawn/Previously Presented) A method of producing a separation module according to Claim 27, said method comprising: (a) providing a plurality of sintered porous ceramic capillaries arranged in parallel, (b) joining the sintered porous ceramic capillaries together by pressing staggered ceramic film strips at least partially around adjacent sintered porous ceramic capillaries to connect them, each of said sintered porous ceramic capillaries thereby being spaced apart from an adjacent sintered porous ceramic capillary by a defined distance established by said staggered ceramic film strips, (c) winding the plurality of sintered porous ceramic capillaries and staggered ceramic film strips into said at least one bundle and (d) passing an end of each of said sintered porous ceramic capillaries through an end plate at a defined distance from an end of an adjacent capillary also passing through said end plate.

29. (New). The separation module of claim 27, wherein said end plate is a perforated ceramic disc.

30. (New). The separation module of claim 29, wherein said end plate is shrunk-fit to said capillaries.